SILT BASIN TYPE B  **1630.02**

A Silt Basin Type B is a temporary basin constructed to settle out and collect sediment flowing through a drainage way. The silt basin is built at the base of the ditch with its length being at least 2 times the width of the basin. The type B basin is generally built in conjunction with temporary rock silt checks and other devices that control or slow down water flow. Silt basins must be monitored closely and cleaned out on a regular basis until grass is established along the ditch line and sedimentation is no longer a problem.

AREAS OF USE:

- In conjunction with temporary rock silt checks and other devices used in drainage ditches.
- Adjacent to drainage inlets such as catch basins, drop inlets, etc.

DESIGN CRITERIA:

- Drainage area should be 3 acres or less.
- Basin length to width ratio should be at least 2:1, with a maximum of 6:1.
- Basin depth should be at least 2 feet.
- Minimum volume should be 1800 cubic feet per acre of disturbed area when used adjacent to drainage structures and 3600 cubic feet per acre when used at drainage outlets in conjunction with stone devices.
- Minimum surface area should be 325 square feet per cfs of the Q_{10} peak inflow when used adjacent to drainage structures, and 435 square feet per cfs when used at drainage outlets in conjunction with stone devices.
- A minimum of 3 baffles shall be installed in the type B silt basin.

CONSTRUCTION SPECIFICATIONS:

- Basins should have an excavated depth of at least 2 feet from the base of ditch flow line.
- Install 3 Coir Fiber Baffles in type B silt basins with a minimum spacing of ¼ the basin length.

MATERIAL SPECIFICATIONS:

- Coir Fiber Baffles shall meet the requirements of the Special Provision.

PAYMENT:

- Installation of measure and silt cleanout of device:

Silt Excavation	Cubic Yard
Coir Fiber Baffle	Linear Foot

MAINTENANCE:

- Inspect basins after each significant rainfall.
- Basins should be cleaned out when approximately one half full.
- Check for damage to coir fiber baffles for repair and replacement.

TYPICAL PROBLEMS:

- Inadequate basin capacities – basins are not constructed to dimensions specified on plans.
- Silt accumulations are not removed when needed.
- Basins built in ditch lines in sandy soils may cause sloughing of slopes.
- Erosion occurring at inlet end when basin is too deep.
- Presents a safety problem if basins are too deep.
- May present problems with the grade if water is allowed to stay in them and saturate the area.
- Water flows under or around coir fiber baffles and settling time decreases instead of increasing.